

user manual

VIPRO VP7806

Fanless Panel PC with
6.5" TFT LCD and Touch Screen

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Regulatory Compliance

FCC-A Radio Frequency Interference Statement

This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his personal expense.

Notice 1

The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Notice 2

Shielded interface cables and A.C. power cord, if any, must be used in order to comply with the emission limits.



Tested To Comply
With FCC Standards
FOR HOME OR OFFICE USE

Battery Recycling and Disposal



Only use the appropriate battery specified for this product.
Do not re-use, recharge, or reheat an old battery.
Do not attempt to force open the battery.
Do not discard used batteries with regular trash.
Discard used batteries according to local regulations.

Safety Precautions



Do's

- Always read the safety instructions carefully.
- Keep this User's Manual for future reference.
- All cautions and warnings on the equipment should be noted.
- Keep this equipment away from humidity.
- Lay this equipment on a reliable flat surface before setting it up.
- Make sure the voltage of the power source and adjust properly 110/220V before connecting the equipment to the power inlet.
- Place the power cord in such a way that people cannot step on it.
- Always unplug the power cord before inserting any add-on card or module.
- If any of the following situations arises, get the equipment checked by authorized service personnel:
 - The power cord or plug is damaged.
 - Liquid has penetrated into the equipment.
 - The equipment has been exposed to moisture.
 - The equipment has not worked well or you cannot get it work according to User's Manual.
 - The equipment has dropped and damaged.
 - The equipment has obvious sign of breakage.



Don'ts

- Do not leave this equipment in an environment unconditioned or in a storage temperature above 60°C (140°F). The equipment may be damaged.
- Never pour any liquid into the opening. Liquid can cause damage or electrical shock.
- Do not place anything over the power cord.
- Do not cover the ventilation holes. The openings on the enclosure protect the equipment from overheating

Box Contents and Ordering Information

Model Number	Description
VIPRO VP7806-R1N13A1	Standard kit <ul style="list-style-type: none"><input type="checkbox"/> 1 x VIPRO VP7806 unit<input type="checkbox"/> 1 x Software driver and utility CD<input type="checkbox"/> 2 x Wall-mount bracket<input type="checkbox"/> 2 x Panel-mount bracket<input type="checkbox"/> 1 x package of panel/wall mounting screw<input type="checkbox"/> 1 x 0.5cc Thermally Conductive Dispensable Gel in tube syringe<input type="checkbox"/> 1 x Power cable, 2-pole Phoenix plug to DC-Jack

Optional Accessories

External AC-to-DC Adapter and Power Cable	
Model Number	Description
99G63-020186	AC-to-DC adapter, DC 19V/90W with 2-pole Phoenix power plug
99G33-02058C	Power cable, 180 cm, USA type
99G33-02057C	Power cable, 180 cm, Europe type
99G33-02092C	Power cable, 180 cm, Japan Type

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1

Product Overview

The VIPRO VP7806 Fanless Panel PC is an embedded panel computer with a 6.5" TFT LCD and Five-Wire Resistive Touch Screen. It has a default 2.0 megapixel camera, stereo speakers, and MIC-in that makes it good for multimedia applications. Its LCD offers wide viewing angles; high contrast and high brightness which can operate up to 700 nits (cd/m²) of brightness. The VIPRO VP7806 also comes with robust housing design that withstands shock and vibration. Its IP65 compliant front panel protects against water and dust.

The VIPRO VP7806 accepts a wide range of DC power input voltages (from DC 7V – 36V). It provides multiple external I/O connectors such as Gigabit Ethernet ports, USB 2.0 ports, configurable COM ports, LVDS port and VGA port. Storage can be integrated into its 2.5-inch internal HDD drive bay and external Compact Flash socket. It also includes a variety of mounting options that make it a flexible system to install.

The VIPRO VP7806 system is based on the Em-ITX mainboard form factor and powered by a VIA Nano 1.3 GHz processor — making it an ideal solution for applications that require low power consumption, and fanless, noise-free operation.

These features make the VIPRO VP7806 Fanless Panel PC suitable for a wide variety of embedded, multimedia, and industrial HMI (Human Machine Interface) applications including factory automation systems, precision machinery, production process control, terminal information systems, entertainment management systems, and car park automation systems...etc. The VIPRO VP7806 is a reliable, cost-effective solution that can shorten your application development time.

KEY FEATURES

Fanless and Ultra Low Power Consumption

- VIA Nano 1.3 GHz Ultra Low Power processor.
- Noise free and fanless operation.

Compact and Robust Housing Design

- Aluminum sealed construction.
- Special cushioned hard disk bay design that absorbs vibration to ensure maximum reliability under harsh conditions.

Multiple I/O Integration and Networking Function

- Supports four USB 2.0 ports, enabling access to USB peripherals such as storage subsystems, security ID devices, card readers, bar code scanners, multifunction printers and scanners individually dedicated or shared among users via the network, making the best of USB device investments.
- The VP7806 has two Gigabit Ethernet, and four serial ports (two RS-232 and two RS-232/422/485 serial ports) that enable communication and control at field level for measurement and operator control of diverse automations, such as Embedded Device Servers for storage, image printing, medical applications, as well as security and access control for POI/POS/Kiosk.

Water and Dust Resistant Front Panel

- IP65 compliant front panel protects against water and dust.

Empowered Multimedia Capabilities

- Built-in 3D/2D performance graphics engine with MPEG-2/4 WMV9 decoding accelerator.

Wide Range of Power Source

- Wide range of DC 7V~36V power source offers flexibility of power input for various automation environments.

Panel/Wall Mountable

- Multiple mounting options make it easy to install anywhere, including Panel mount and Wall mount.

SPECIFICATIONS

Processor Core Logic System

CPU

- VIA Nano 1.3 GHz Processor
 - NanoBGA2 package: compact 21 mm x 21 mm
 - 800 MHz Front Side Bus speed
 - 1 MB L2 Cache memory

System Chipset

- VIA VX800 Unified Digital Media IGP chipset

BIOS

- Award BIOS
- 8Mbit SPI Flash BIOS
- Supports Diskless Boot to BIOS ROM (Free DOS operating system environment)

System Power Management

- Times Power On
- ACPI Supported

System Memory

Technology

- One 200-pin SODIMM socket support DDR2 533/667 SDRAM

Maximum Capacity

- Supports memory sizes up to 2 GB

Graphic

Controller

- Integrated VIA Chrome9 HC3 DX9 3D/2D graphics engine with MPEG-2/4 WMV9 video decoding acceleration built-in VIA VX800 Unified Digital Media IGP chipset

Display Memory

- Optimized shared memory architecture, supports up to 256 MB frame buffer using system memory

External Display Interface

- Supports one external VGA port by a DB-9 connector
- Supports one 24-bit single-channel LVDS interface by a DB-26 connectors

LCD Display

LCD Type

- 6.5" color TFT LCD panel, LED driving

Resolution/Color

- Supports up to 640 x 480 @ 262K

Pixel Pitch

- 0.207 mm x 0.207 mm

Viewing Angle

- 80° (right), 80° (left), 70° (up) and 70° (down)

Luminance:

- 700 cd/m²

LED Backlight MTBF

- 50,000 hours (typical)

Touch Screen

Type

- Fire-Wire Analog resistive

Transparency

- 80% \pm 3%

Controller:

- Built-in system a EETI ETP-CP-S5XU, USB interface controller

Software Driver:

- Supports Windows XP and Windows 7

Durability (Knock Test):

- 35 million

Gigabit Ethernet

Controller

- Two VIA VT6130 Gigabit Ethernet controllers

Interface

- Support two RJ45 connectors
- Supports Wake On LAN (WOL)
- Supports Preboot Execution Environment (PXE)

Audio

Controller

- VIA VT1708B High Definition Audio Codec

External Speakers

- Supports left and right speakers on front bezel

External Microphone

- Supports microphone on front bezel

Serial

Interface

- Supports four USB 2.0 ports
 - USB 2.0 compliant
- Support 4 COM ports
 - Two RS-232/422/485 configurable via BIOS setup
 - Two RS-232

Storage

Serial ATA HDD

- Supports a hard disk drive bay space for 2.5-inch of SATA Hard Disk Drive.

CompactFlash

- One socket support type I/II CompactFlash disk

System Indicator

Power Status LED

- One green color LED

HDD Activity LED

- One red color LED

Camera

Built-in a 2.0 megapixel CMOS camera on the front bezel

Watchdog Timer

Output

- System reset

Interval

- Programmable 1~255 sec.

System I/O ports

Top I/O Coastline on PC Unit

- One DB-9 connector for a VGA/CRT interface
- One DB-26 connectors for a 24-bit single channel LVDS interface (LVDS2)
- Two RJ-45 connectors for dual Gigabit Ethernet connection (LAN1 and LAN2)
- Two USB mini-DIN connectors (USB3 and USB4)

Bottom I/O Coastline on PC Unit

- One HDD and PWR LED
- Two RS-232/422/485 COM port connectors (COM1 and COM2)
- Two RS-232 COM port connectors (COM3 and COM4)
- Two USB mini-DIN connectors (USB1 and USB2)
- One Phoenix 2-pole power input connector
- One ATX power On/Off switch button

Power Supply

Input Voltage

- Built-in onboard DC-to-DC converter
- Accept wide range of Power Input of 7VDC ~ 36VDC
- Typical Power Input
 - 7 V_{DC} @ 2.64 A
 - 12 V_{DC} @ 1.54 A
 - 16 V_{DC} @ 1.15 A
 - 19 V_{DC} @ 0.97 A
 - 24 V_{DC} @ 0.77 A
 - 36 V_{DC} @ 0.51 A
- Support AT and ATX mode

Input Power Protection

- Supports over voltage protection
- Supports over current protection
- Supports under voltage protection

Mechanical Characteristics

Construction

- Aluminum mixed with heavy-duty steel

Mounting

- Panel/wall mountable

Dimension (W x H x D)

- 203 mm x 165 mm x 78.42 mm (7.9" x 6.5" x 3")

Net Weight

- 3 kg (6.6 lbs)

Environment Specifications

Operating Temperature

- With CompactFlash disk only: -20°C up to 60 °C
- With 2.5-inch hard disk drive: 0°C up to 45 °C

Storage Temperature

- -20°C up to 70 °C

Relative Humidity

- 0% ~ 90% @ 45% °C, non-condensing

Vibration loading during operation

- With CompactFlash disk only:
5Grms, IEC 60068-2-64, random,
5~500Hz, 1 Oct./min, 1hr/axis
- With 2.5-inch hard disk drive:
1Grms, IEC 60068-2-64, random
5 ~ 500Hz, 1 Oct./min, 1hr/axis

Shock during operation

- With CompactFlash disk only: 50G, IEC 60068-2-27, half sine, 11ms duration
- With 2.5-inch hard disk drive: 20G, IEC 60068-2-27, half sine, 11ms duration

Front Panel Protection

- IP65 compliant

EMC Approved

- CE/FCC Class A

Safety Approved

- UL, CCC

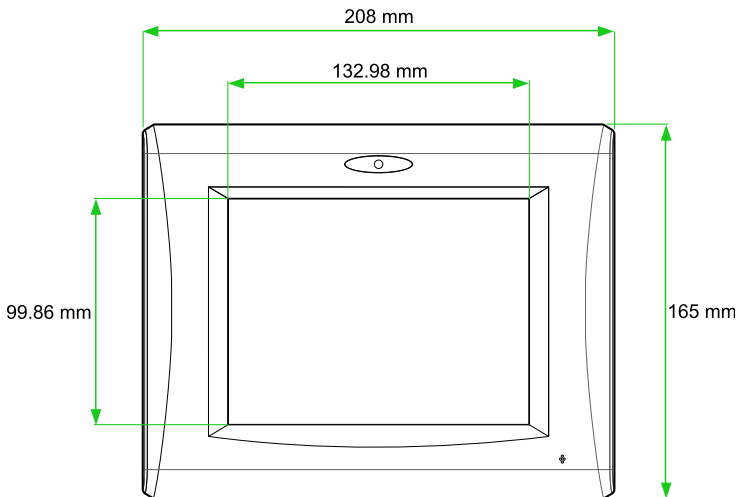
Software Compatibility

Operating System

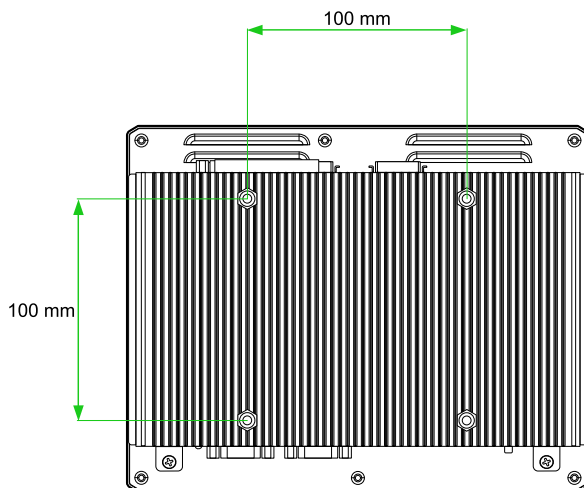
- Windows XP, Windows 7 and Windows XP Embedded
- Ubuntu Linux

VIPRO VP7806 DIMENSIONS

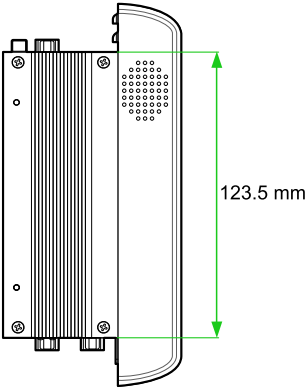
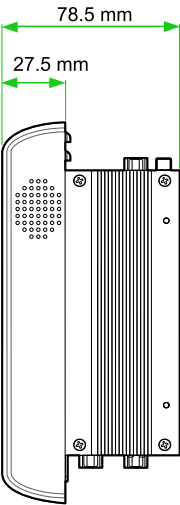
Front View



Back View



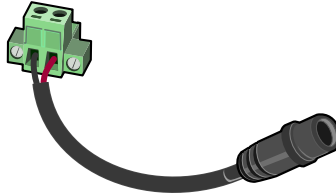
Right and Left View



ACCESSORIES

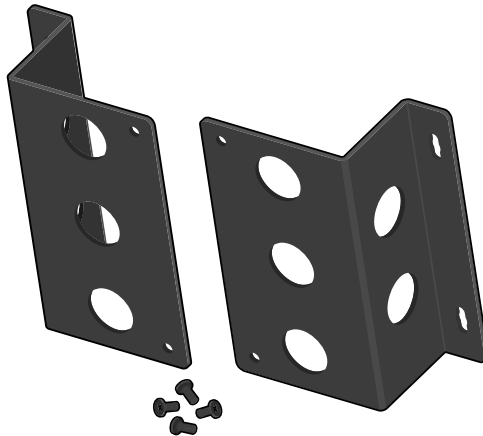
Power cable 2-pole Phoenix

Part # 99G33-250073



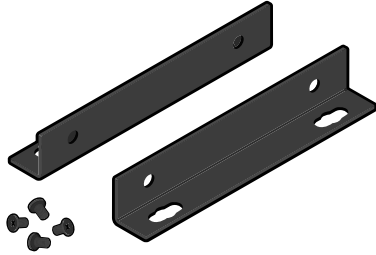
Panel-mount Brackets

Part # 99G42-091536-A1



Wall-mount Brackets

Part # 99G42-091376-A1



Panel/Wall-mounting Screws

Part # 99G44-010395



Heatsink Grease

Part # 99G26-110022



2

VIPRO VP7806 Hardware Functionality

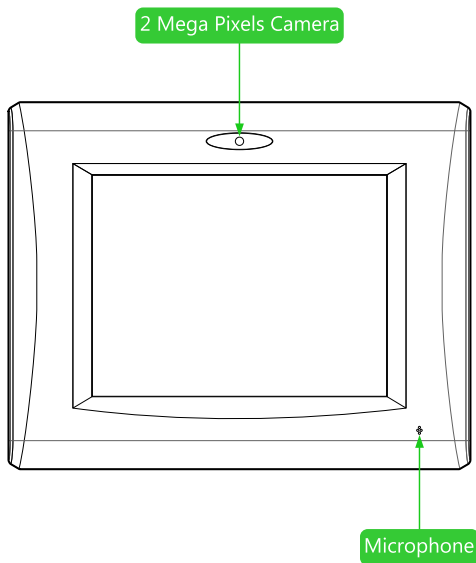
This chapter provides information about the VIPRO VP7806's external I/O connectors, switches, LED indicators and its functionality.

Section includes:

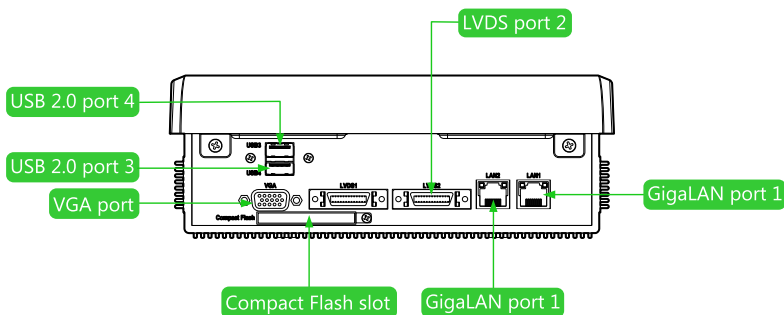
Introduction of I/O Layout
I/O Connectors Functionality

INTRODUCTION OF I/O LAYOUT

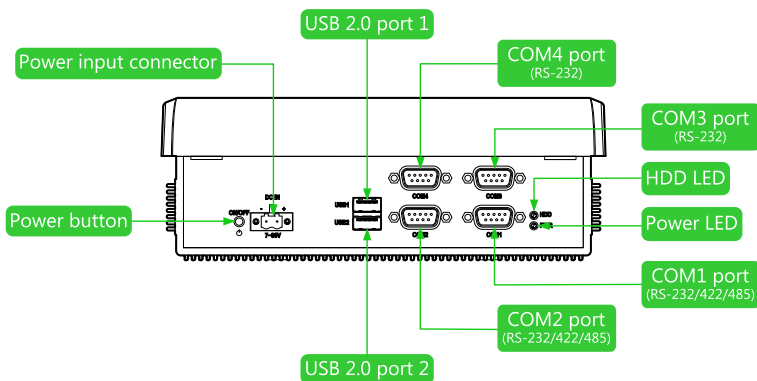
Front View Layout



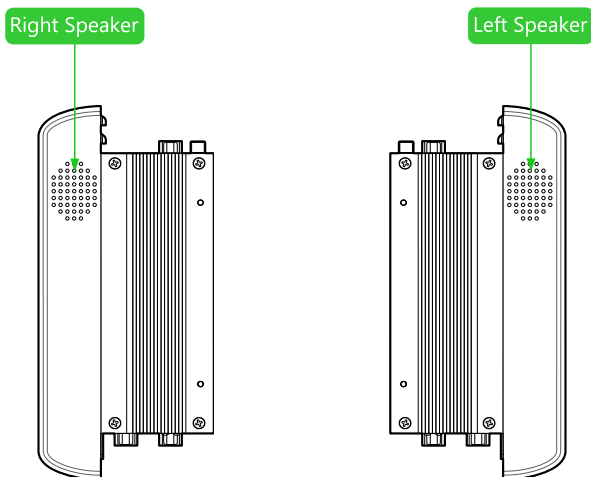
Top View Layout



Bottom View Layout



Right and Left View Layout



I/O CONNECTOR FUNCTIONALITY

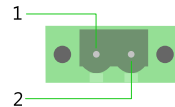
Power Button

The VIPRO VP7806 comes with a dual function Power On/Off button on the bottom I/O side that supports Soft Power -On/Off (i.e., Instant off or 4-Second Delay) and Suspend.

Power Input Connector

The VIPRO VP7806 comes with a Phoenix connector on the bottom I/O side that carries 7 ~ 36VDC external power input.

Pin	Signal
1	GND
2	7VDC ~ 36VDC

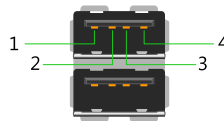


USB Ports: USB Port 1 ~ Port 4

The VIPRO VP7806 provides four USB 2.0 interface connectors (USB1 ~ USB4). The USB1 and USB2 connectors are located on bottom I/O side while USB3 and USB4 are located on top I/O side. Each USB port supports Plug & Play and hot swapping for external devices. The USB interface complies with USB UHCI, Rev. 2.0.

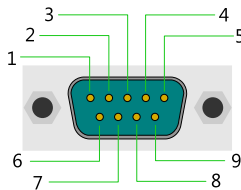
The USB-interface connector is used for connecting any device that conforms to the USB interface. Many recent digital devices conform to this standard. The USB interface supports Plug and Play, which enables you to connect or disconnect a device whenever you want, without turning off the computer

Pin	Signal
1	VCC
2	USB_P0-
3	USB_P0+
4	GND



COM Port Connectors

The VIPRO VP7806 provides four D-Sub 9-pin connectors: COM1, COM2, COM3 and COM4.



COM1 and COM2 ports

The VIPRO VP7806 provides two D-Sub 9-pin connectors (COM1 and COM2) for RS-232/422/485 serial communications on bottom I/O side.

	RS-232	RS-422	RS-485
Pin	Signal	Signal	Signal
1	DCD	Tx-	DATA-
2	RxD	Tx+	DATA+
3	TxD	Rx+	NC
4	DTR	Rx-	NC
5	GND	GND	GND
6	DSR	NC	NC
7	RTS	NC	NC
8	CTS	NC	NC
9	RI	NC	NC

The default setting of COM1 and COM2 is RS-232, both COM1 and COM2 can be configured to operate in RS-232, RS-422 or RS-485 mode by changing the settings in the BIOS setup menu. See page 65 for details.



Note:

NC represents "No Connection"

COM3 and COM4 ports

The VIPRO VP7806 provides two D-Sub 9-pin connectors on the bottom I/O side, which offers standard RS-232 serial communications interface.

Refer to the table list below for the pin assignments of COM3 and COM4.

Pin	Signal
1	DCD
2	RxD
3	TxD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	RI

LED Indicators

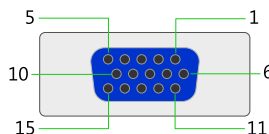
There are two LEDs on the VIPRO VP7806 bottom I/O side for indicating system status:

- **PWR LED** is for power status and flashes in green
- **HDD LED** is for hard disk and compact flash disk status, and flashes in red.

VGA Connector

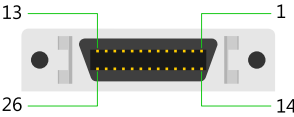
The VIPRO VP7806 provides a high resolution VGA interface on the top I/O side through a D-sub 15-pin connector to support a VGA CRT monitor. It supports resolutions up to 1920 x 1200. The pin assignments for the VGA display are listed below.

Pin	Signal
1	Red
2	Green
3	Blue
4	NC
5	GND
6	GND
7	GND
8	GND
9	NC
10	GND
11	NC
12	NC
13	H-SYNC
14	V-SYNC
15	NC



LVDS Connector: LVDS2

The VIPRO VP7806 supports one external 24-bit single channel LVDS interface connector using D-Sub 26-pin connector on top I/O side. The connector also carries the inverter control signals.



Built in LCD Backlight On/Off and Brightness control signals

LVDS2 connector includes the following control signals: BLON, and BRIGHTNESS_CTL. In addition +12V, +5V and Ground Pin signals are also included, allowing developers and applications to connect these signals to the LCD Inverter to implement the LCD backlight On/Off control and brightness control.

- Provides the “BLON” signal that the inverter module requires for controlling the Backlight On/Off feature.
- Provides 12V and 5V as the Inverter Power Source.
- Provides the “BRIGHTNESS_CTL” signal pin that can be connected to LCD’s Inverter that allow applicant to implement brightness adjustment through customer’s software utility.

LVDS2

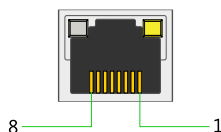
Pin	Signal	Pin	Signal
1	+LCLK2	14	GND
2	-LCLK2	15	+LD2C3
3	GND	16	-LD2C3
4	+LD2C2	17	GND
5	-LD2C2	18	GND
6	GND	19	+LD2C1
7	+LD2C0	20	-LD2C1
8	-LD2C0	21	GND
9	SPCLK2	22	SPD2
10	PVDD2	23	PVDD2
11	IVDD2_12V	24	IVDD2_12V
12	BLON2	25	BRIGHTNESS_CTL2
13	IVDD2_5V	26	IVDD2_5V

Onboard LCD signal power 3.3V/5V switch

The system also provides jumper header (PVDD2_SEL) onboard for selecting the LCD signal power of 3.3V or 5V for LVDS2. The default setting of PVDD2 is 3.3V.

LAN ports: Gigabit Ethernet Port 1 and 2

The VIPRO VP7806 system is equipped with two VIA VT6130 PCIe Gigabit Ethernet controllers on the mainboard. The controllers provide support for two Gigabit Ethernet RJ-45 ports (LAN1 and LAN2) on top I/O side. Both are fully compliant with IEEE 802.3 (10BASE-T), 802.3u (100BASE-TX), and 802.3ab (1000BASE-T) standards. The pin assignments of LAN1 and LAN2 ports are listed below.



LAN1		LAN2	
Pin	Signal	Pin	Signal
1	LAN1_TD0+	1	LAN2_TD0+
2	LAN1_TD0-	2	LAN2_TD0-
3	LAN1_TD1+	3	LAN2_TD1+
4	LAN1_TD1-	4	LAN2_TD1-
5	LAN1_TD2+	5	LAN2_TD2+
6	LAN1_TD2-	6	LAN2_TD3-
7	LAN1_TD3+	7	LAN2_TD3+
8	LAN1_TD3-	8	LAN2_TD3-

Both LAN1 and LAN2 are equipped with 2 individual LED indicators to show its Active/Link status and Speed status.

LAN LED Status

	Link LED	Active LED
	(Left LED on RJ-45 connector)	(Right LED on RJ-45 connector)
Active	The LED always On in different color, and it depends on different of LAN connection speed	Flash in Orange color
Link	The LED always On in different color, and it depends on different of LAN connection speed	LED is off
Speed_10Mbit	The LED is always On in Orange color	Flash in Orange color
Speed_100 Mbit	The LED is always On in Green color	Flash in Orange color
Speed_1000 Mbit	The LED is always On in Red color	Flash in Orange color

3

Hardware Installation and Upgrade

This chapter provides information about hardware installation procedures. It is recommended to use a grounded wrist strap before handling computer components. Electrostatic discharge (ESD) can damage some components.

Section includes:

Basic Installation

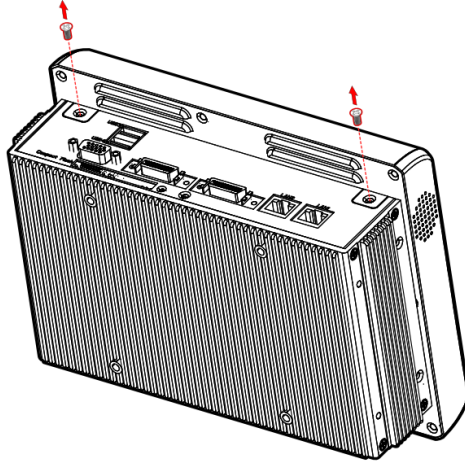
Setting Up the Jumpers

BASIC INSTALLATION

Opening the Chassis

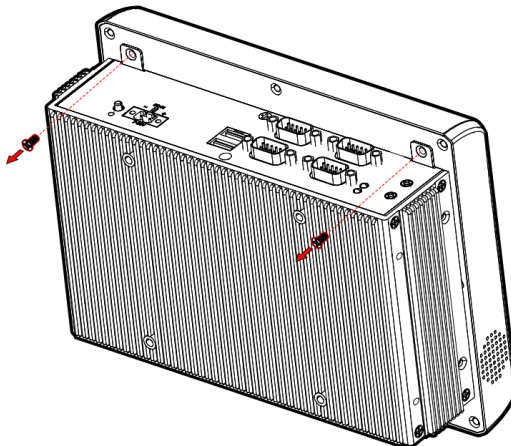
Step 1

Remove the two screws from the top I/O side.



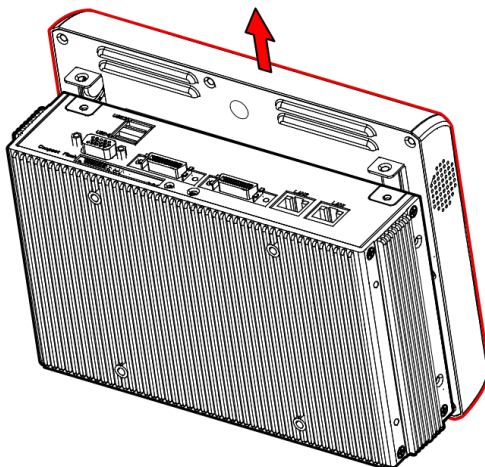
Step 2

Then remove the two screws from the bottom I/O side.



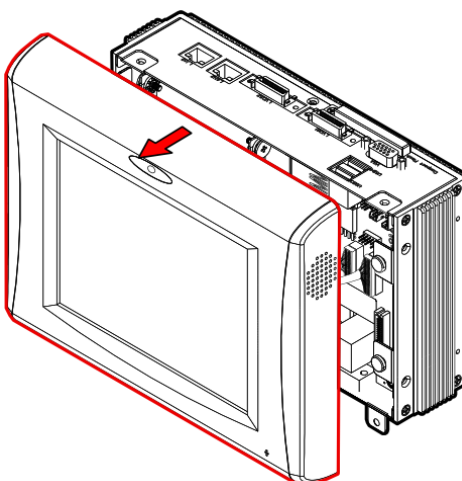
Step 3

Slide the panel upward until the display panel is released from locking mechanism.



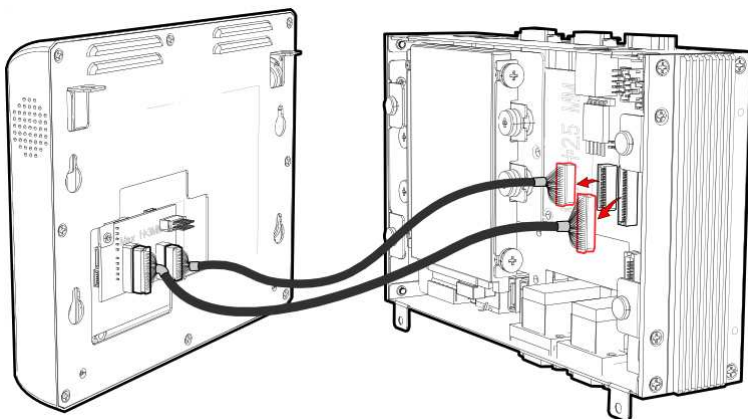
Step 4

Lift the display panel a little bit perpendicularly from the main body of VIPRO 7806.



Step 5

Then disconnect connector A and connector B cables from the connectors on the main body of the VIPRO 7806 as show in the figure below.

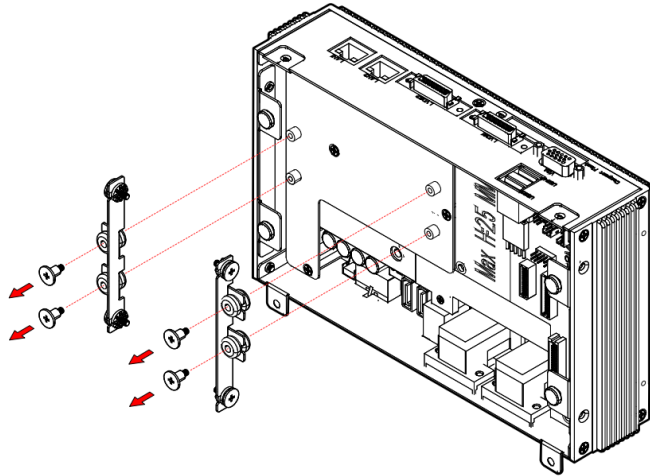
**Note:**

You can disconnect the connectors either from the main body or from back of the panel.

Installing the Memory

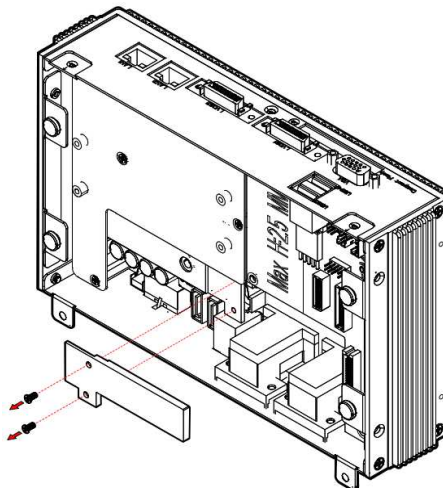
Step 1

Remove the hard disk brackets by unscrewing the four screws.



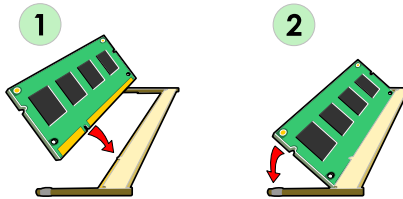
Step 2

Unscrew the two screws to remove the portion of the memory heatsink in order to locate the memory slot.



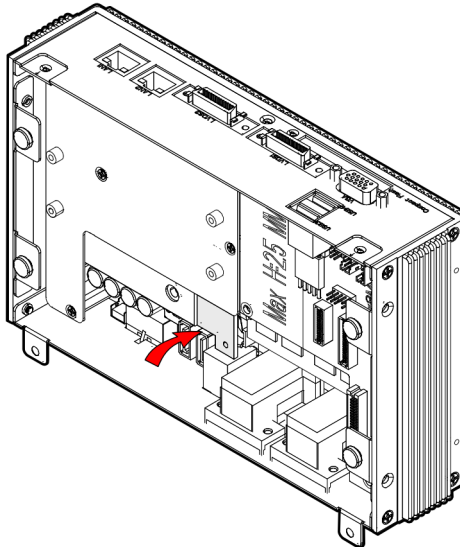
Step 3

Insert the memory module into the SODIMM socket at a 45 degree angle. Then push down until the memory module snaps into place. The SODIMM socket has two locking mechanisms that will click once the memory module has been fully inserted.



Step 4

Apply the thermal grease on the memory heatsink joint using the syringe injection before replacing the memory heatsink.

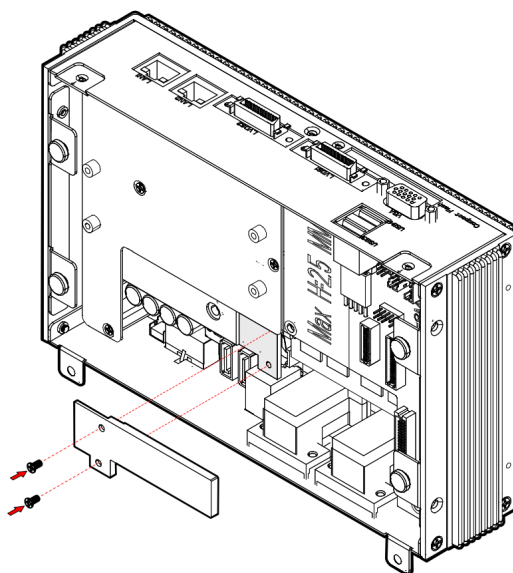


Step 5

Peel the protective layers off of the memory thermal pad on the bottom of the memory heatsink.

Step 6

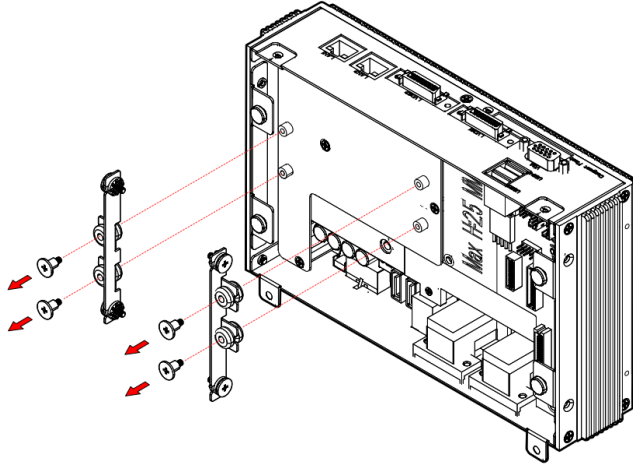
Reinstall the memory heatsink and secure it with two screws.



Installing the SATA 2.5" hard disk

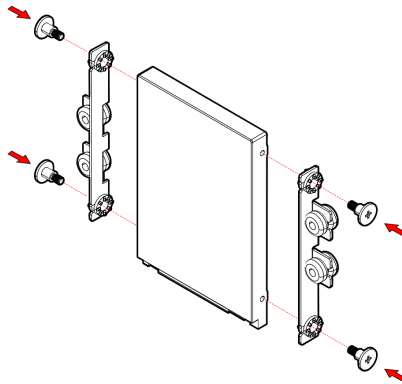
Step 1

Remove the SATA 2.5" hard disk mounting brackets.



Step 2

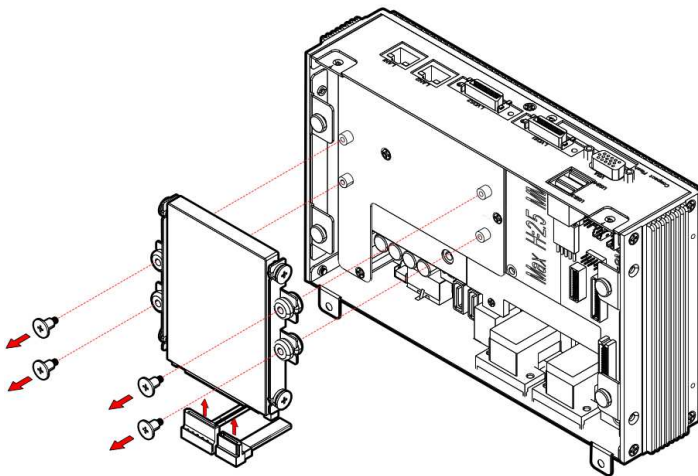
Prepare the hard disk screws and rubber washer. Align the mounting holes on the SATA 2.5" hard disk with the mounting holes on the hard disk mounting brackets. Secure the hard disk in place with four hard disk screws.

**Note:**

Use the shorter screws when installing the brackets onto the hard disk drive.

Step 3

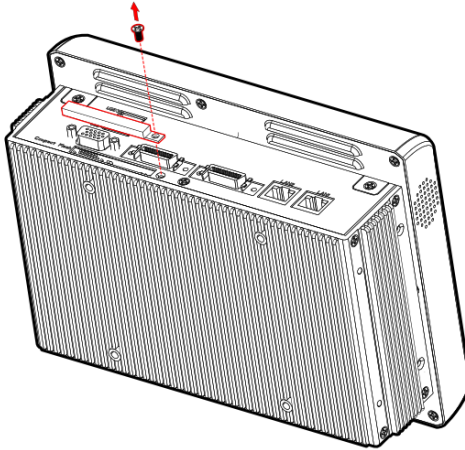
Align the mounting brackets with the mounting holes on the hard disk plate. Secure the brackets in place with four screws. Then connect the SATA power and data cables of the hard disk, also connect the other ends of the cables to the SATA port and SATA power port onto the board.



Installing the CompactFlash Card

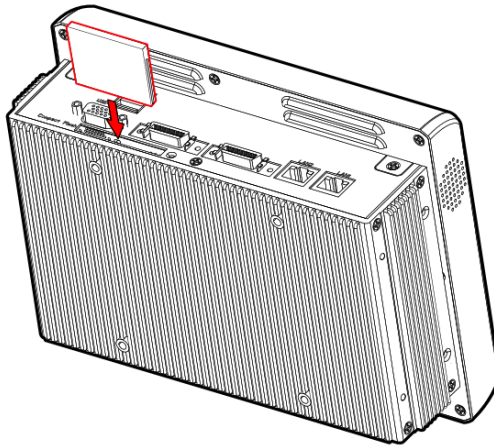
Step 1

Locate the CompactFlash access cover on the top I/O side of the VIPRO VP7806 and remove the screw to remove the access cover.



Step 2

Ensure the proper orientation of the CompactFlash card with the CompactFlash slot before inserting.



Step 3

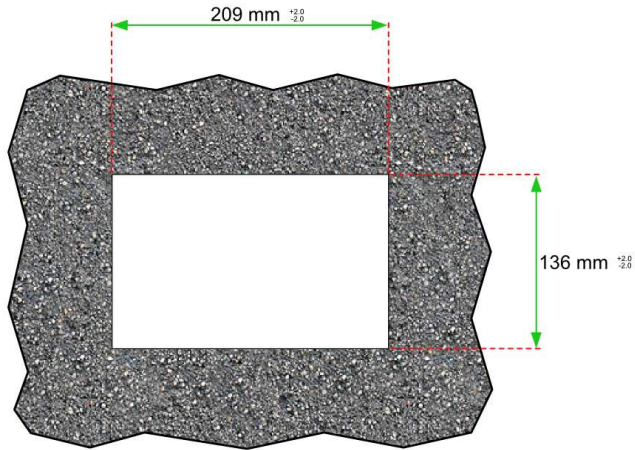
Replace the CompactFlash access cover. Secure the CompactFlash access cover with the screw.

Installing Panel mounting kit

Panel mounting should be used in situations where only the front and bezel of the VIPRO VP7806 will be visible.

Step 1

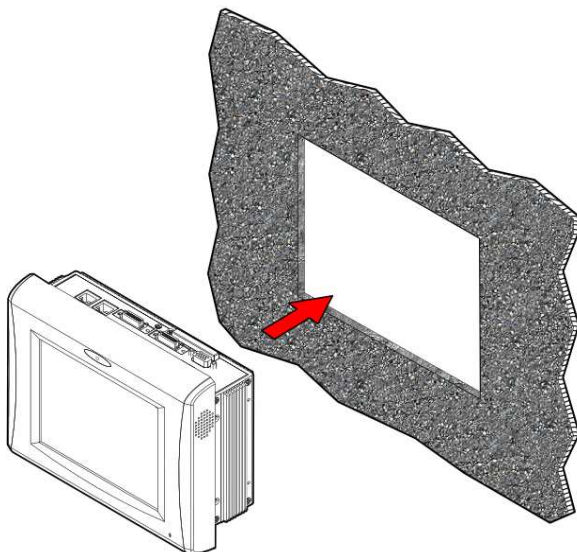
Prepare and cutout a designated space on the wall for embedding the VIPRO VP7806. A recommended cutout dimension is shown below.

**Note:**

The cutout shown above is for embedding the VIPRO VP7806 directly into the wall without an additional chassis. If using a chassis to mount the VIPRO VP7806, ensure the cutout is sufficient for the chassis.

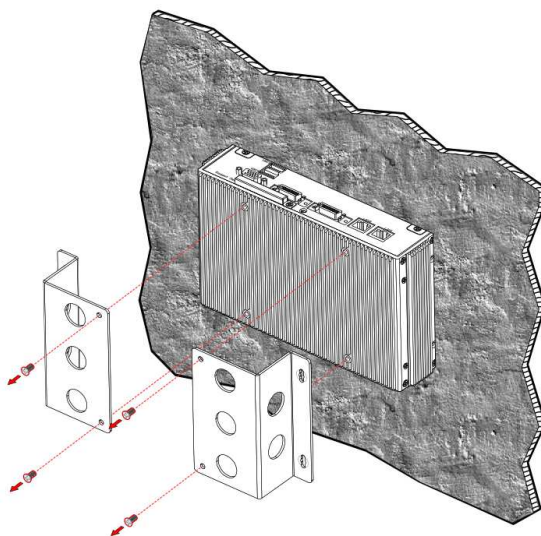
Step 2

Once the cutout has been prepared, slide the VIPRO VP7806 backwards into the panel opening.



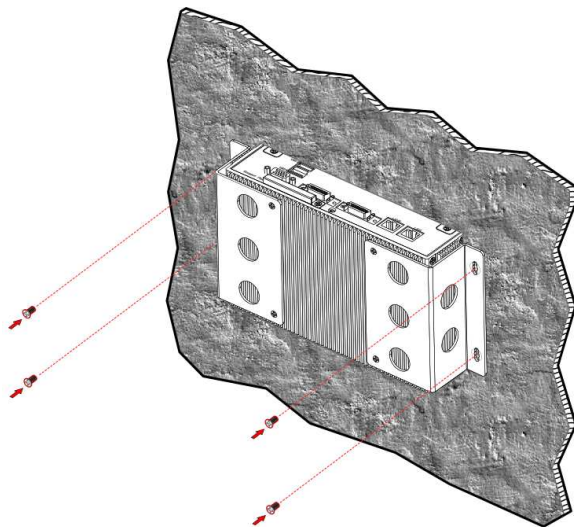
Step 3

From the other side of the panel, align the panel mounting brackets on the rear side of VIPRO VP7806 and attach the four screws.



Step 4

Secure the VIPRO VP7806 to the wall with four screws.



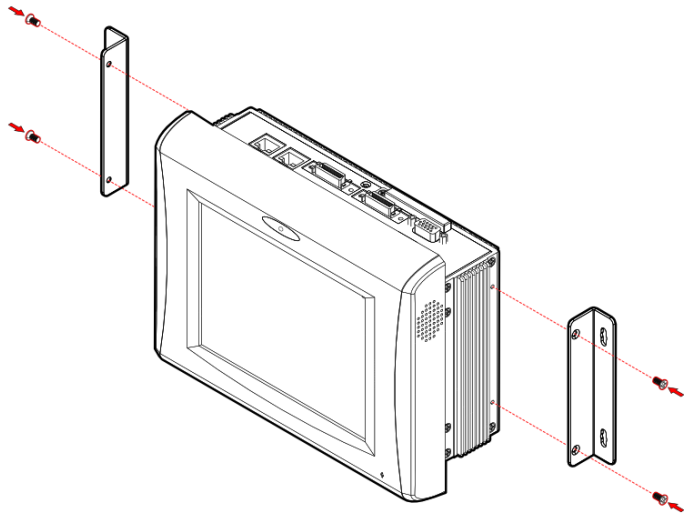
Installing Wall mounting kit (optional)

Wall mounting should be used when the VIPRO VP7806 cannot be embedded into the wall. When wall mounting, the entire system will be exposed.

For details on the assembly of the wall mounting kit, refer to the installation guide provided with the wall mounting kit.

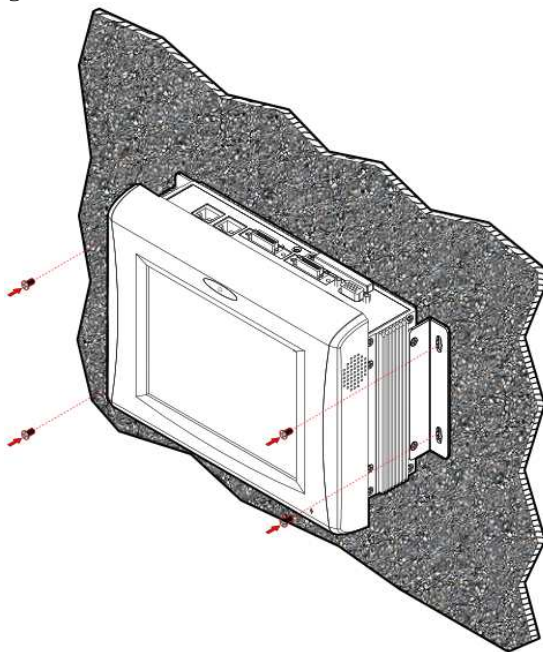
Step 1

Position the wall mounting brackets on sides of the chassis with four screws.



Step 2

Secure the both mounting brackets to the wall with four wall-mounting screws.

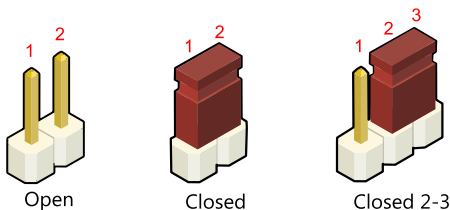


SETTING UP THE JUMPERS

This section will explain how to configure the VIPRO VP7806 to match the needs of your application by setting the jumpers.

Jumper Settings

The VIPRO VP7806 internal board provides a jumper for setting some system hardware functions. The jumper is the simplest kind of electrical switch. It consists of two metal pins and a small metal clip. It is often protected by a plastic cover that slides over the pins to connect them. In order to “close” a jumper, you should connect the pins with the clip. And remove the clip in order to “open” the jumper. Sometimes a jumper will have three pins which labeled 1, 2, and 3. In this case, you would connect either pins 1 and 2 or pins 2 and 3.

**Note:**

A pair of needle nose pliers may be helpful when setting up the jumpers. If you have any doubts about the proper hardware configuration for your application, contact your local distributor or sales representative before you make any changes.

CLEAR_CMOS: Clear CMOS jumper

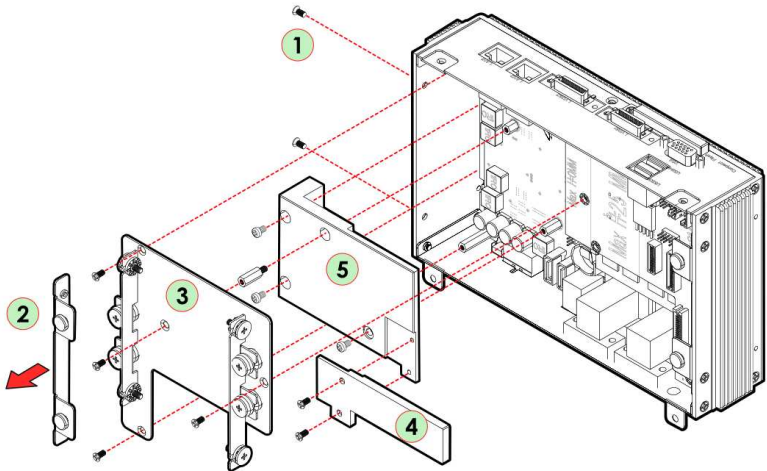
The CMOS RAM of VIPRO VP7806 system internal motherboard stores system configuration data and has an onboard battery power supply.

Step 1

Remove the front bezel by following the procedures in Opening the Chassis.

Step 2

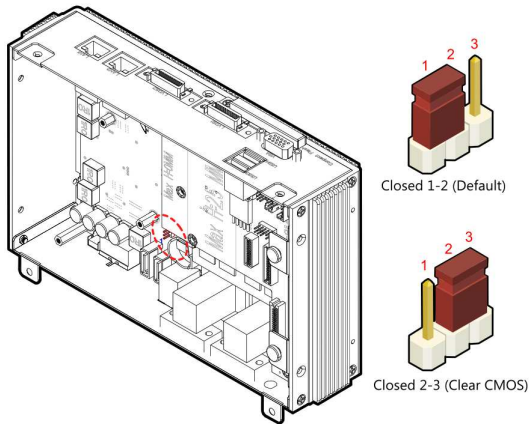
Locate the 3-pin CLEAR_CMOS jumper by removing the bezel's left slide bracket, hard disk drive plate, memory heatsink and the main heatsink. The following sequences are shown in the figure below.



Step 3

To reset the CMOS settings, set the jumper on pin 2 and 3 while the system is off. Return the jumper to pin 1 and 2 afterwards. Setting the jumper while the system is on will damage the mainboard.

Setting	1	2	3
Normal Operation (default)	ON	ON	OFF
Clear CMOS setting	OFF	ON	ON



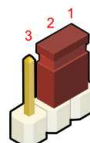
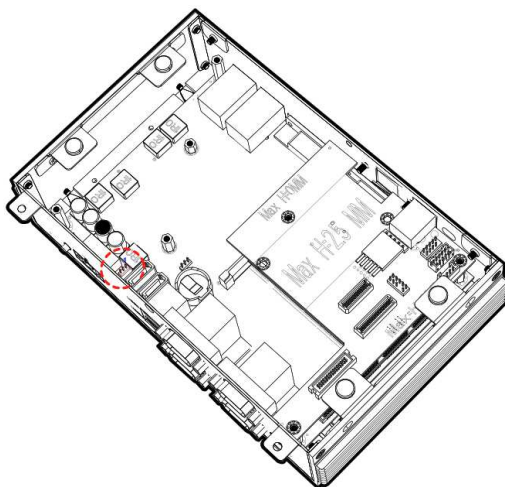
Caution:

Except when clearing the RTC RAM, never remove the CLEAR_CMOS jumper cap from the default position. Removing the cap will cause system boot failure. Avoid clearing the CMOS while the system is on; it will damage the mainboard.

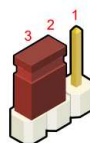
AT/ATX Power mode Select

The VIPRO VP7806 supports two kinds of power modes: ATX (default) and AT. The ATX mode requires a standby power connection and a power supply on signal to turn on the main power supply. The AT mode does not require a standby power connection but needs to be connected to ground to boot up properly. The power mode can be set by changing the jumper position on the 3-pin AT/ATX pin header. Default setup support ATX mode.

Setting	1	2	3
AT mode	ON	ON	OFF
ATX mode (default)	OFF	ON	ON



Closed 1-2 (AT Mode)



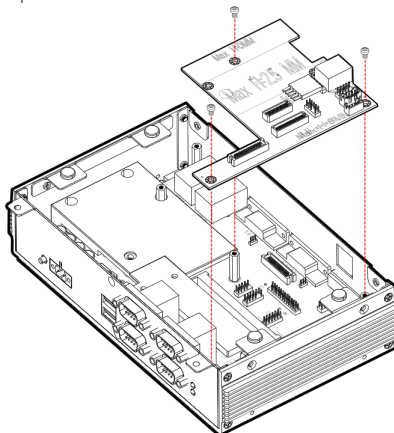
Closed 2-3 (ATX Mode)

PVDD2_SEL: LCD power jumper

The VIPRO VP7815 system internal motherboard provides an onboard jumper named “PVDD2_SEL” for setting the LCD signal power to either 5V or 3.3V. When connecting the LVDS LCD Panel display to LVDS2 on the top I/O side, the setting of PVDD2_SEL must match the power requirements of the connected LVDS Panel display. The default setting of PVDD2_SEL is 3.3V.

Step 1

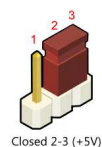
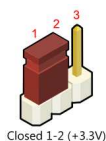
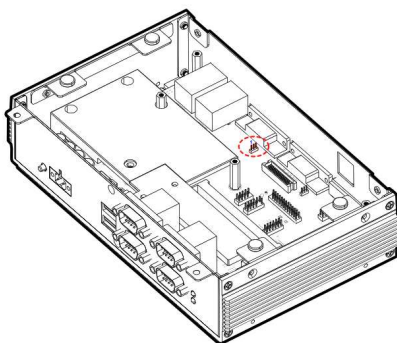
Remove the daughter board (EMIO-1410) to access the PVDD2_SEL jumper.



Step 2

The PVDD2_SEL setting can be set by changing the jumper position.

Setting	1	2	3
+3.3V (default)	ON	ON	OFF
+5V	OFF	ON	ON



4

BIOS Setup

This chapter gives a detailed explanation of the BIOS setup functions.

ENTERING THE BIOS SETUP MENU

Power on the computer and press <Delete> during the beginning of the boot sequence to enter the BIOS setup menu. If you missed the BIOS setup entry point, restart the system and try again.

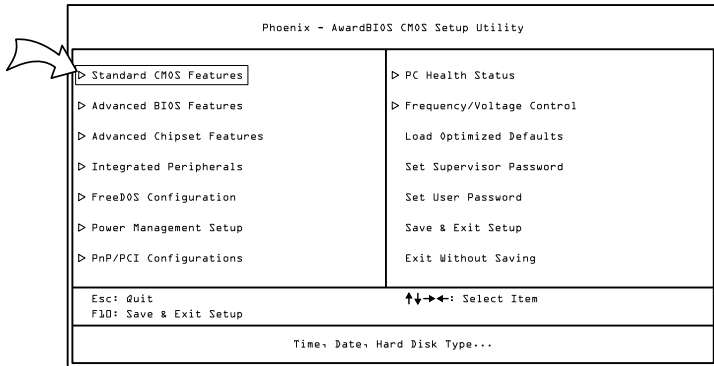
CONTROL KEYS

Keys	Description
Up	Move to the previous item
Down	Move to the next item
Left	Move to the item in the left side
Right	Move to the item in the right side
Enter	Select the item
Esc	Jumps to the Exit menu or returns to the main menu from a submenu
Page up	Increase the numeric value or make changes
Page down	Decrease the numeric value or make changes
+ (number pad)	Increase the numeric value or make changes
- (number pad)	Decrease the numeric value or make changes
F1	General help, only for Status Page Setup Menu and Option Page Setup Menu
F5	Restore the previous CMOS value from CMOS, only for Option Page Setup Menu
F6	Load the default CMOS value from Fail-Safe default table, only for Option Page Setup Menu
F7	Load Optimized defaults
F10	Save all the CMOS changes and exit

NAVIGATING THE BIOS MENUS

The main menu displays all the BIOS setup categories. Use the <Left>/<Right> and <Up>/<Down> arrow keys to select any item or sub-menu. Descriptions of the selected/highlighted category are displayed at the bottom of the screen.

The small triangular arrowhead symbol next to a field indicates that a sub-menu is available (see figure below). Press <Enter> to display the sub-menu. To exit the sub-menu, press <Esc>.

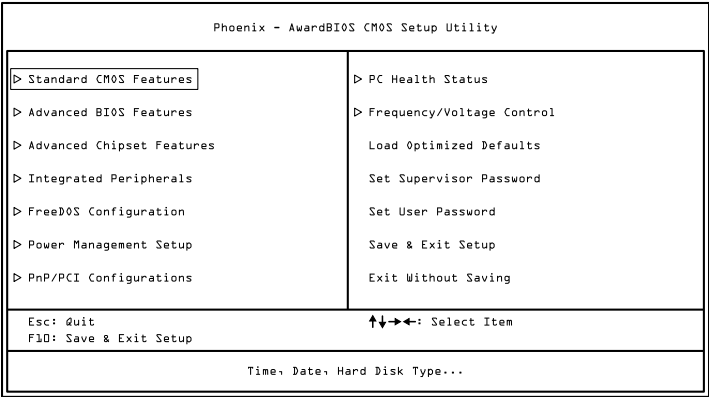


GETTING HELP

The BIOS setup program provides a “General Help” screen. You can display this screen from any menu/sub-menu by pressing <F1>. The help screen displays the keys for using and navigating the BIOS setup. Press <Esc> to exit the help screen.

MAIN MENU

The Main Menu contains thirteen setup functions and two exit choices. Use arrow keys to select the items and press <Enter> to accept or enter Sub-menu.



Standard CMOS Features

Use this menu to set basic system configurations.

Advanced BIOS Features

Use this menu to set the advanced features available on your system.

Advanced Chipset Features

Use this menu to set chipset specific features and optimize system performance.

Integrated Peripherals

Use this menu to set onboard peripherals features.

FreeDOS Configuration

Use this menu to set FreeDOS configuration.

Power Management Setup

Use this menu to set onboard power management functions.

PnP/PCI Configurations

Use this menu to set the PnP and PCI configurations.

PC Health Status

This menu shows the PC health status.

Frequency/Voltage Control

Use this menu to set the system frequency and voltage control.

Load Optimized Defaults

Use this menu option to load BIOS default settings for optimal and high performance system operations.

Set Supervisor Password

Use this menu option to set the BIOS supervisor password.

Set User Password

Use this menu option to set the BIOS user password.

Save & Exit Setup

Save BIOS setting changes and exit setup.

Exit Without Saving

Discard all BIOS setting changes and exit setup.

STANDARD CMOS FEATURES

Phoenix - AwardBIOS CMOS Setup Utility Standard CMOS Features		
Date (mm:dd:yy) Time (hh:mm:ss)	Thu- <u>Mar</u> 25 2010 3 : 17 : 8	Item Help
> IDE Channel 0 Master	[None]	Menu Level > Change the day, month, year and century
> IDE Channel 0 Slave	[None]	
> IDE Channel 1 Master	[None]	
> IDE Channel 1 Slave	[None]	
Video	[EGA/VGA]	
Halt On	[All, But Keyboard]	
Base Memory	640K	
Extended Memory	456784K	
Total Memory	456784K	
↑↓→←: Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help F5: Previous Values F7: Optimized Defaults		

Date

The date format is [Day, Month, Date, Year]

Time

The time format is [Hour : Minute : Second]

Video

Settings: [EGA/VGA, CGA 40, CGA 80, MONO]

Halt On

Set the system's response to specific boot errors. Below is a table that details the possible settings.

Settings	Description
All Errors	System halts when any error is detected
No Errors	System does not halt for any error
All, But Keyboard	System halts for all non-key errors

IDE CHANNELS

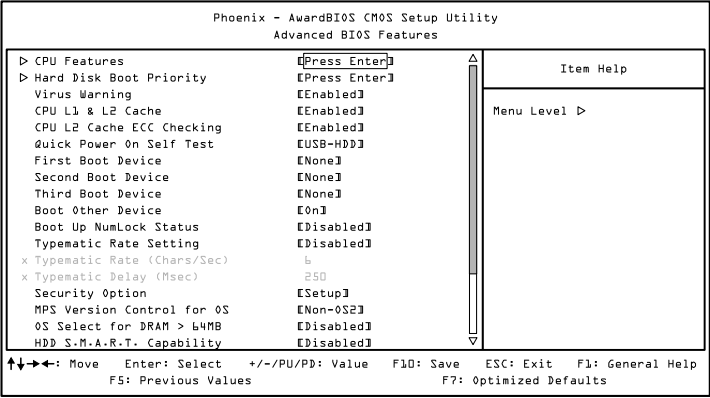
Phoenix - AwardBIOS CMOS Setup Utility		
IDE Channel 0 Master		
IDE HDD Auto-Detection	[Press Enter]	Item Help
IDE Channel 0 Master	[Auto]	Menu Level >>
Access Mode	[Auto]	To auto-detect the HDD's size, head... on this channel
Capacity	0 MB	
Cylinder	0	
Head	0	
Precomp	0	
Landing Zone	0	
Sector	0	
↑↓→←: Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help		
F5: Previous Values F7: Optimized Defaults		

The specifications of your drive must match with the drive table. The hard disk will not work properly if you enter incorrect information in this category. Select “Auto” whenever possible. If you select “Manual”, make sure the information is from your hard disk vendor or system manufacturer.

Below is a table that details required hard drive information when using the “Manual” mode.

Settings	Description
IDE Channel	The name of this match the name of the menu. Settings: [None, Auto, Manual]
Access Mode	Settings: [CHS, LBA, Large, Auto]
Capacity	Formatted size of the storage device
Cylinder	Number of cylinders
Head	Number of heads
Precomp	Write precompensation
Landing Zone	Cylinder location of the landing zone
Sector	Number of sectors

ADVANCED BIOS FEATURES



Virus Warning

Allows you to choose the VIRUS warning feature for IDE Hard Disk boot sector protection.

Settings	Description
Enabled	Turns on hard disk boot sector virus protection
Disabled	Turns off hard disk boot sector virus protection



Note:

If this function is enabled and someone attempt to write data into this area, BIOS will show a warning message on the screen and alarm beep.

CPU L1 & L2 Cache

Settings	Description
Disabled	Turns off CPU L1 & L2 cache
Enabled	Turns on CPU L1 & L2 cache

CPU L2 Cache ECC Checking

Settings: [Enabled, Disabled]

Quick Power On Self-Test

Shortens Power On Self-Test (POST) cycle to enable shorter boot up time.

Settings	Description
Disabled	Standard Power On Self Test (POST)
Enabled	Shorten Power On Self Test (POST) cycle and boot up time

First/Second/Third Boot Device

Set the boot device sequence as BIOS attempts to load the disk operating system.

Settings	Description
LS120	Boot from LS120
Hard Disk	Boot from the HDD
CDROM	Boot from CDROM
ZIP100	Boot from ZIP100
USB-FDD	Boot from USB Floppy
USB-ZIP	Boot from USB ZIP drive
USB-CDROM	Boot from USB CDROM
Legacy LAN	Boot from network drive
Disabled	Disable the boot device sequence

Boot Other Device

Enables the system to boot from alternate devices if the system fails to boot from the "First/Second/Third Boot Device" lists.

Settings	Description
Disabled	No alternate boot device allowed
Enabled	Enable alternate boot device

Boot Up NumLock Status

Set the NumLock status when the system is powered on.

Settings	Description
Off	Forces keypad to behave as arrow keys
On	Forces keypad to behave as 10-key

Typematic Rate Setting

Enable "Typematic Rate" function.

Settings: [Disabled, Enabled]

Typematic Rate (Chars/Sec)

This item sets the rate (characters/second) at which the system retrieves a signal from a depressed key.

Settings: [6, 8, 10, 12, 15, 20, 24, 30]

Typematic Delay (Msec)

This item sets the delay between, when the key was first pressed and when the system begins to repeat the signal from the depressed key.

Settings: [250, 500, 750, 1000]

Security Option

Selects whether the password is required every time the System boots, or only when you enter Setup.

Settings	Description
Setup	Password prompt appears only when end users try to run BIOS Setup
System	Password prompt appears every time when the computer is powered on and when end users try to run BIOS Setup

MPS Version Control for OS

Settings: [1.1, 1.4]

OS Select for DRAM > 64 MB

Settings: [Non-OS2, OS2]

HDD S.M.A.R.T Capability

Settings: [Disabled, Enabled]

Video BIOS Shadow

Settings: [Disabled, Enabled]

Full Screen Logo Show

Show full screen logo during BIOS boot up process.

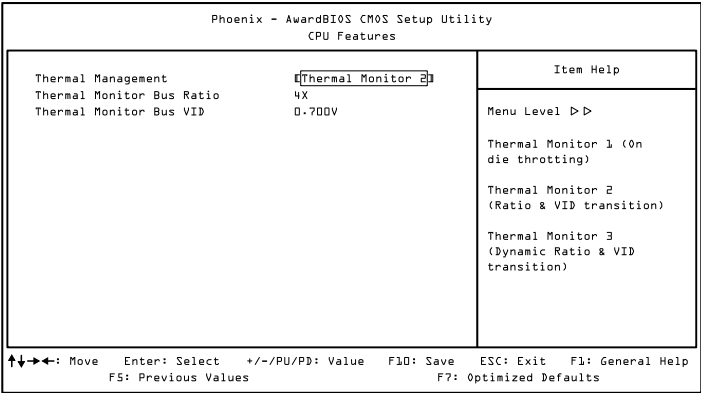
Settings: [Disabled, Enabled]

Summary Screen Show

Show summary screen.

Settings: [Disabled, Enabled]

CPU FEATURE



Thermal Management

This item sets CPU's thermal control rule to protect CPU from overheat.

Settings	Description
Thermal Monitor 1	On-die throttling
Thermal Monitor 2	Ratio & VID transition
Thermal Monitor 3	Dynamic Ratio & VID transition
Disabled	Disable the thermal monitor

Thermal Monitor Bus Ratio

This item sets the frequency (bus ratio) of the throttled performance that will be initiated when one on die sensor goes from not hot to hot.

Key in a DEC number.

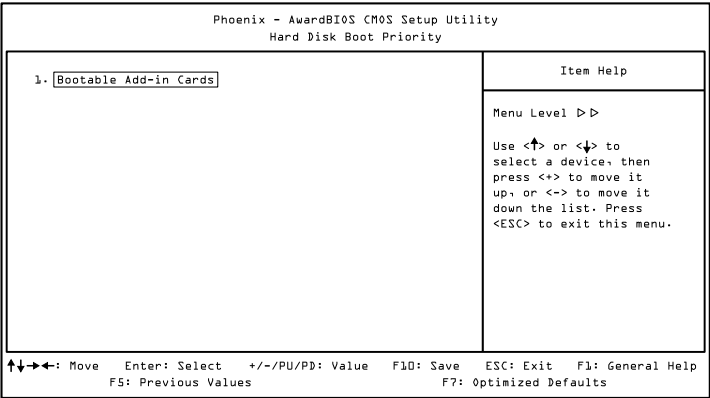
Settings: [Min = 0, Max = 255]

Thermal Monitor Bus VID

This item sets the voltage of the throttled performance that will be initiated when the on die sensor goes from not hot to hot.

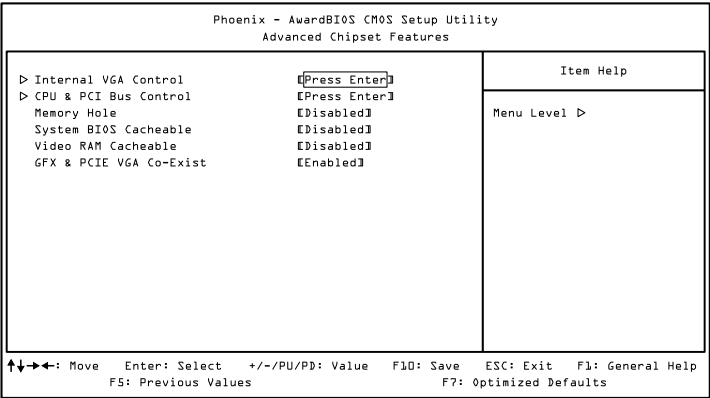
Settings: [0.700V, 0.716V, 0.732V, 0.748V, 0.764V, 0.780V, 0.796V, 0.812V, 0.828V, 0.844V, 0.860V, 0.876V, 0.892V, 0.908V, 0.924V, 0.940V, 0.956V, 0.972V, 0.988V, 1.004V, 1.020V, 1.036V, 1.052V, 1.068V, 1.084V, 1.100V, 1.116V, 1.132V, 1.148V, 1.164V, 1.180V, 1.196V, 1.212V, 1.228V, 1.244V, 1.260V, 1.276V, 1.292V, 1.308V, 1.324V, 1.340V, 1.356V, 1.372V, 1.388V, 1.404V, 1.420V, 1.436V, 1.452V, 1.468V, 1.484V, 1.500V, 1.516V, 1.532V, 1.548V, 1.564V, 1.580V, 1.596V, 1.612V, 1.628V, 1.644V, 1.660V, 1.676V, 1.692V, 1.708]

HARD DISK BOOT PRIORITY



This is for setting the priority of the hard disk boot order when the “Hard Disk” option is selected in the “[First/Second/Third] Boot Device” menu item.

ADVANCED CHIPSET FEATURES



Caution:

The Advanced Chipset Features menu is used for optimizing the chipset functions. Do not change these settings unless you are familiar with the chipset.

Memory Hole

Settings: [Disabled, 15M – 16M]

System BIOS Cacheable

Settings: [Disabled, Enabled]

Video RAM Cacheable

Settings: [Disabled, Enabled]

GFX & PCIE VGA Co-Exist

Settings: [Disabled, Enabled]

CPU & PCI Bus Control

Phoenix - AwardBIOS CMOS Setup Utility	
CPU & PCI Bus Control	
PCI Master 0 WS Write	<input type="text" value="Enabled"/>
PCI Delay Transaction	<input type="text" value="Enabled"/>
VIA PWR Management	<input type="text" value="Enabled"/>
Item Help	
Menu Level >>	

↑↓→←: Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help
F5: Previous Values F7: Optimized Defaults

PCI Master 0 WS Write

Settings: [Disabled, Enabled]

PCI Delay Transaction

Settings: [Disabled, Enabled]

VIA PWR Management

Settings: [Disabled, Enabled]

INTEGRATED PERIPHERALS

Phoenix - AwardBIOS CMOS Setup Utility		
Integrated Peripherals		
<div>▷ VIA OnChip IDE Device</div> <div>▷ VIA OnChip PCI Device</div> <div>▷ SuperIO Device</div> <div>▷ USB Device Setting</div>	<div>Press Enter</div>	Item Help
	<div>Press Enter</div>	Menu Level ▷
	<div>Press Enter</div>	
	<div>Press Enter</div>	
<div>↑↓→←: Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help</div> <div>F5: Previous Values F7: Optimized Defaults</div>		

VIA ONCHIP IDE DEVICE

Phoenix - AwardBIOS CMOS Setup Utility		
VIA OnChip IDE Device		
CF Card ATAb6	[Enabled]	Item Help
SATA Controller	[Enabled]	Menu Level D>D> Enable it to support ATAb6 (UDMA Mode 4) when CF card exists on IDE Channel.
IDE DMA Transfer Access	[Enabled]	
OnChip IDE Channel 1	[Enabled]	
IDE Prefetch Mode	[Enabled]	
Secondary Master PIO	[Auto]	
Secondary Slave PIO	[Auto]	
Secondary Master UDMA	[Auto]	
Secondary Slave UDMA	[Auto]	
IDE HDD Block Mode	[Enabled]	
↑↓→←: Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help		
F5: Previous Values F7: Optimized Defaults		

CF Card ATA66

Settings: [Disabled, Enabled]

SATA Controller

Settings: [Disabled, Enabled]

IDE DMA Transfer Access

Settings: [Disabled, Enabled]

OnChip IDE Channel 1

Settings: [Disabled, Enabled]

IDE Prefetch Mode

Settings: [Disabled, Enabled]

Secondary Master PIO

Settings: [Auto, Mode 0, Mode 1, Mode 2, Mode 3, Mode 4]

Secondary Slave PIO

Settings: [Auto, Mode 0, Mode 1, Mode 2, Mode 3, Mode 4]

Secondary Master UDMA

Settings: [Disabled, Auto]

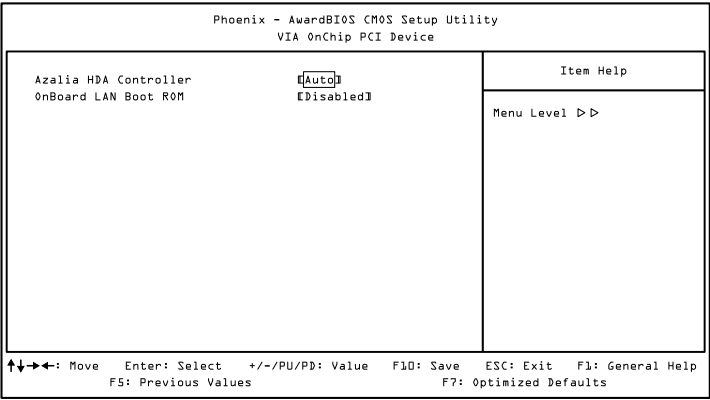
Secondary Slave UDMA

Settings: [Disabled, Auto]

IDE HDD Block Mode

Settings: [Disabled, Enabled]

VIA ONCHIP PCI DEVICE



Azalia HDA Controller

Settings: [Disabled, Auto]

OnBoard LAN Boot ROM

Settings: [Enabled, Disabled]

SUPERIO DEVICE

Phoenix - AwardBIOS CMOS Setup Utility		
SuperIO Device		
<div>➤ Super IO COM Ports (UARTs) [Press Enter]</div> <div>Onboard Parallel Port [378/IRQ7]</div> <div>Parallel Port Mode [SPP]</div> <div>ECP Mode Use DMA 3</div> <div>Watch Dog Timer Select [Disabled]</div>		<div>Item Help</div> <div>Menu Level ➤➤</div>
<div>⬆⬆⬆⬆⬆ Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help</div> <div>F5: Previous Values F7: Optimized Defaults</div>		

Onboard Parallel Port

Settings: [Disabled, 378/IRQ7, 278/IRQ5, 3BC/IRQ7]

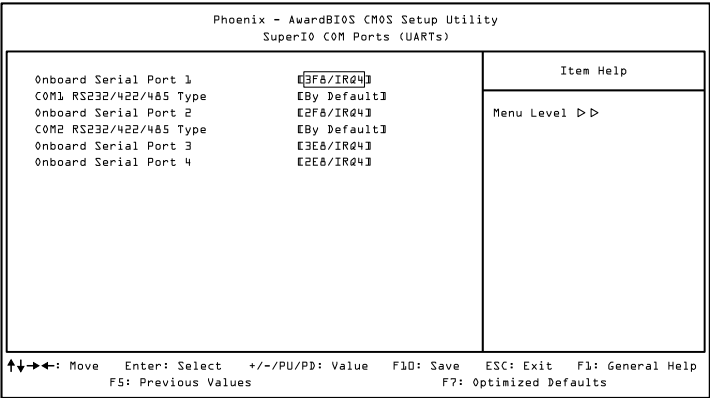
Parallel Port Mode

Settings: [SPP, EPP, ECP, ECP+EPP]

Watch Dog Timer Select

Settings: [Disabled, 10 Sec, 20 Sec, 30 Sec, 40 Sec, 1 Min, 2 Min, 4 Min]

SUPERIO COM PORTS (UARTs)



Onboard Serial Port 1

Settings: [Disabled, 3F8/IRQ4, 2F8/IRQ4, 3E8/IRQ4, 2E8/IRQ4]

COM1 RS232/422/485 Type

Settings: [By Default, RS232, RS422, RS485]

Onboard Serial Port 2

Settings: [Disabled, 3F8/IRQ4, 2F8/IRQ4, 3E8/IRQ4, 2E8/IRQ4]

COM2 RS232/422/485 Type

Settings: [By Default, RS232, RS422, RS485]

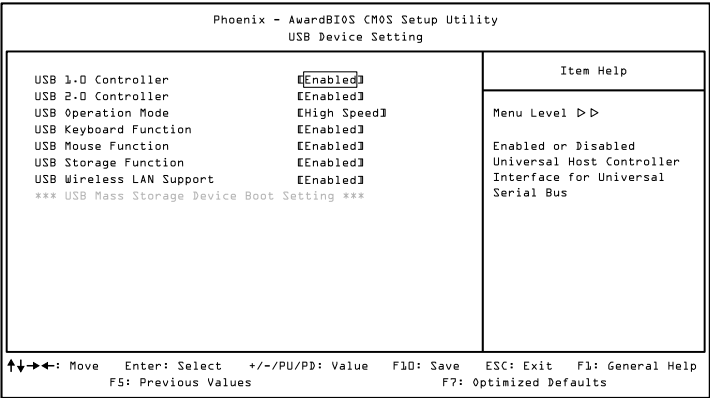
Onboard Serial Port 3

Settings: [Disabled, 3F8/IRQ4, 2F8/IRQ4, 3E8/IRQ4, 2E8/IRQ4]

Onboard Serial Port 4

Settings: [Disabled, 3F8/IRQ4, 2F8/IRQ4, 3E8/IRQ4, 2E8/IRQ4]

USB DEVICE SETTING



USB 1.0 Controller

Enable or disable Universal Host Controller Interface for Universal Serial Bus.
Settings: [Disabled, Enabled]

USB 2.0 Controller

Enable or disable Enhanced Host Controller Interface for Universal Serial Bus.
Settings: [Disabled, Enabled]

USB Operation Mode

Auto decide USB device operation mode.

Settings	Description
Full/Low Speed	All of USB Device operated on full/low speed mode
High Speed	If USB device was high speed device, then it operated on high speed mode.

USB Keyboard Function

Enable or disable Legacy support of USB Keyboard.
Settings: [Disabled, Enabled]

USB Mouse Function

Enable or disable Legacy support of USB Mouse.
Settings: [Disabled, Enabled]

USB Storage Function

Enable or disable Legacy support of USB Mass Storage.
Settings: [Disabled, Enabled]

USB Wireless LAN Support

Settings: [Disabled, Enabled]

FREEDOS CONFIGURATION

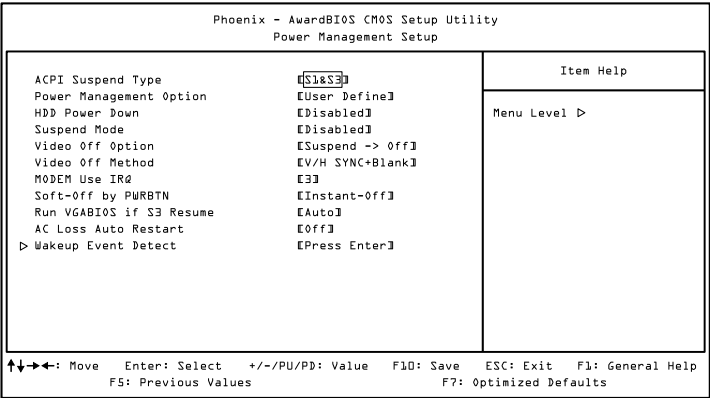
Phoenix - AwardBIOS CMOS Setup Utility	
FreeDOS Configuration	
Boot into FreeDOS <div> <input type="checkbox"/> Disabled </div>	<div>Item Help</div> <div>Menu Level ▸</div> <div>The system will boot to FreeDOS when it is enabled.</div>
<div> ↑↓→←: Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help </div> <div> F5: Previous Values F7: Optimized Defaults </div>	

Boot into FreeDOS

The system will boot to FreeDOS.

Settings: [Disabled, Enabled]

POWER MANAGEMENT SETUP



ACPI Suspend Type

Settings	Description
S1(POS)	S1/Power On Suspend (POS) is a low power state. In this state, no system context (CPU or chipset) is lost and hardware maintains all system contexts.
S3(STR)	S3/Suspend To RAM (STR) is a power-down state. In this state, power is supplied only to essential components such as main memory and wakeup-capable devices. The system context is saved to main memory, and context is restored from the memory when a "wakeup" event occurs.
S1 & S3	Depends on the OS to select S1 or S3.

Power Management Option

Settings: [User Define, Min Saving, Max Saving]

HDD Power Down

Set the length of time for a period of inactivity before powering down the hard disk.

Settings: [Disable, 1 Min, 2 Min, 3 Min, 4 Min, 5 Min, 6 Min, 7 Min, 8 Min, 9 Min, 10 Min, 11 Min, 12 Min, 13 Min, 14 Min, 15 Min]

Suspend Mode

Settings: [Disabled, 1 Min, 2 Min, 4 Min, 6 Min, 8 Min, 10 Min, 20 Min, 30 Min, 40 Min, 1 Hour]

Video Off Option

Select whether or not to turn off the screen when system enters power saving mode, ACPI OS such as Windows XP will override this option.

Settings	Description
Always On	Screen is always on even when system enters power saving mode
Suspend -> Off	Screen is turned off when system enters power saving mode

Video Off Method

Settings: [Blank Screen, V/H SYNC + Blank, DPMS Support]

MODEM Use IRQ

Settings: [NA, 3, 4, 5, 7, 9, 10, 11]

Soft-Off by PWRBTN

Settings	Description
Delay 4 Sec	System is turned off if power button is pressed for more than four seconds.
Instant-Off	Power button functions as a normal power-on/-off button.

Run VGABIOS if S3 Resume

Select whether to run VGA BIOS if resuming from S3 state. This is only necessary for older VGA drivers.

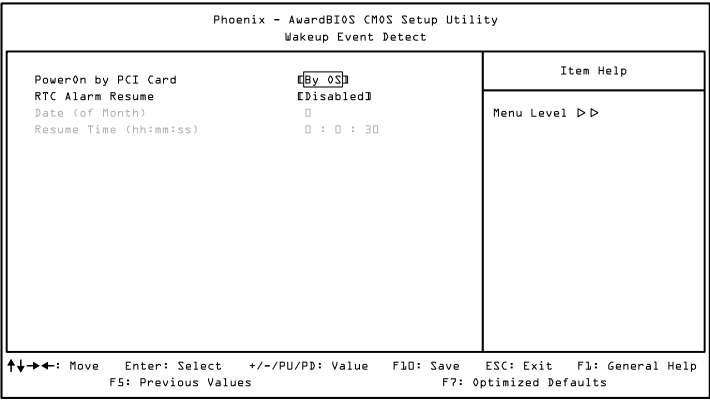
Settings: [Auto, Yes, No]

AC Loss Auto Restart

The field defines how the system will respond after an AC power loss during system operation.

Settings	Description
Off	Keeps the system in an off state until the power button is pressed
On	Restarts the system when the power is back
Former-Sts	Former-Sts

WAKEUP EVENT DETECT



PowerOn by PCI Card

Enables activity detected from any PCI card to power up the system or resume from a suspended state. Such PCI cards include LAN, onboard USB ports, etc.
Settings: [By OS, Enabled]

RTC Alarm Resume

Set a scheduled time and/or date to automatically power on the system.
Settings: [Disabled, Enabled]

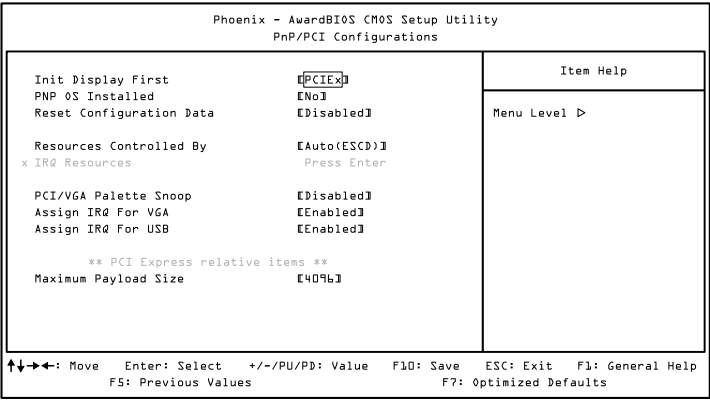
Date (of Month)

This field can only be set if “RTC Alarm Resume” is enabled. The field specifies the date for “RTC Alarm Resume”.

Resume Time (hh:mm:ss)

This field can only be set if “RTC Alarm Resume” is enabled. The field specifies the time for “RTC Alarm Resume”.

PNP/PCI CONFIGURATIONS



Note:
This section covers some very technical items and it is strongly recommended to leave the default settings as is unless you are an experienced user.

Init Display First

Settings: [Onboard, PCIEx]

PNP OS Installed

Settings	Description
No	BIOS will initialize all the PnP cards
Yes	BIOS will only initialize the PnP cards used for booting (VGA, IDE, SCSI). The rest of the cards will be initialized by the PnP operating system

Reset Configuration Data

Settings	Description
Disabled	Default setting
Enabled	Resets the ESCD (Extended System Configuration Data) after exiting BIOS Setup if a newly installed PCI card or the system configuration prevents the operating system from loading

Resources Controlled By

Enables the BIOS to automatically configure all the Plug-and-Play compatible devices.

Settings	Description
Auto(ESCD)	BIOS will automatically assign IRQ, DMA and memory base address fields
Manual	Unlocks "IRQ Resources" for manual configuration

PCI/VGA Palette Snoop

Settings: [Disabled, Enabled]

Assign IRQ for VGA

Assign IRQ for VGA devices.

Settings: [Disabled, Enabled]

Assign IRQ for USB

Assign IRQ for USB devices.

Settings: [Disabled, Enabled]

Maximum Payload Size

This options sets the maximum TLP payload size in bytes for PCI Express devices.

Settings: [128, 256, 512, 1024, 2048, 4096]

FREQUENCY/VOLTAGE CONTROL

Phoenix - AwardBIOS CMOS Setup Utility		
Frequency/Voltage Control		
Current FSB Frequency	200 MHz	Item Help
Current DRAM Frequency	266 MHz	
DRAM Frequency	[SPD]	Menu Level >
DDR CAS Latency Control	[SPD]	
DDR Burst Length	[SPD]	
DDR 1T Command Rate	[Disabled]	
DRDY Table	[Optimize]	
ODT	[Enabled]	
Spread Spectrum	[+/-0.1%]	
↑↓→←: Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help		
F5: Previous Values F7: Optimized Defaults		

DRAM Frequency

Settings: [DDR2-400, DDR2-533, DDR2-667, SPD]

DDR CAS Latency Control

Settings: [2T, 3T, 4T, 5T, 6T, SPD]

DDR Burst Length

Settings: [4, 8, SPD]

DDR 1T Command Rate

Settings: [Disabled, Enabled]

DRDY Table

Settings: [Slowest, Optimize]

ODT

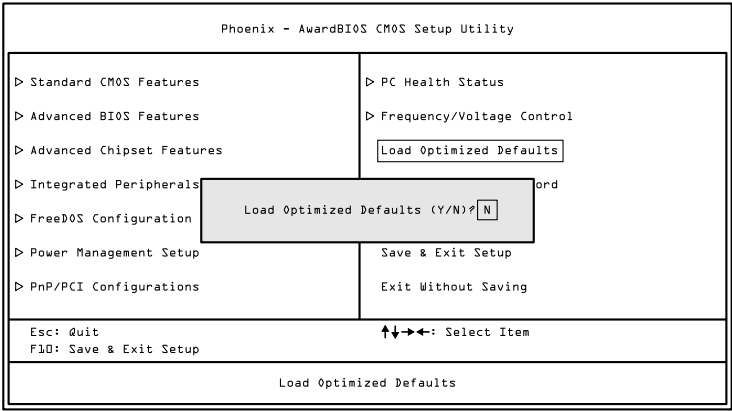
Settings: [Disabled, Enabled]

Spread Spectrum

When the mainboard's clock generator pulses, the extreme values (spikes) of the pulses create EMI (Electromagnetic Interference). The Spread Spectrum function reduces the EMI generated by modulating the pulses so that the spikes of the pulses are reduced to flatter curves.

Settings: [Disabled, +/- 0.1%, +/- 0.2%, +/- 0.3%, +/- 0.4%, +/- 0.5%, +/- 0.6%, +/- 0.7%, +/- 0.8%, +/- 0.9%]

LOAD OPTIMIZED DEFAULTS



This option is for restoring all the default optimized BIOS settings. The default optimized values are set by the mainboard manufacturer to provide a stable system with optimized performance.

Entering "Y" and press <Enter> to load the default optimized BIOS values. Entering "N" will cancel the load optimized defaults request.

SET SUPERVISOR/USER PASSWORD

The screenshot shows the 'Phoenix - AwardBIOS CMOS Setup Utility' interface. It features a menu on the left with options like 'Standard CMOS Features', 'Advanced BIOS Features', 'Advanced Chipset Features', 'Integrated Peripherals', 'FreeDOS Configuration', 'Power Management Setup', and 'PnP/PCI Configurations'. On the right, there are options for 'PC Health Status', 'Frequency/Voltage Control', 'Load Optimized Defaults', 'Save & Exit Setup', and 'Exit Without Saving'. A dialog box titled 'Enter Password:' is overlaid on the screen, with a text input field and a 'Password' label. At the bottom, there are instructions: 'Esc: Quit', 'F10: Save & Exit Setup', and '↑↓←→: Select Item'. The status bar at the very bottom reads 'Change/Set/Disable Password'.

This option is for setting a password for entering BIOS Setup. When a password has been set, a password prompt will be displayed whenever BIOS Setup is run. This prevents an unauthorized person from changing any part of your system configuration.

There are two types of passwords you can set. A supervisor password and a user password. When a supervisor password is used, the BIOS Setup program can be accessed and the BIOS settings can be changed. When a user password is used, the BIOS Setup program can be accessed but the BIOS settings cannot be changed.

To set the password, type the password (up to eight characters in length) and press <Enter>. The password typed now will clear any previously set password from CMOS memory. The new password will need to be reentered to be confirmed. To cancel the process press <Esc>.

To disable the password, press <Enter> when prompted to enter a new password. A message will show up to confirm disabling the password. To cancel the process press <Esc>.

Additionally, when a password is enabled, the BIOS can be set to request the password each time the system is booted. This would prevent unauthorized use of the system. See “**Security Option**” in the “**Advanced BIOS Features**” section for more details.

SAVE & EXIT SETUP

Phoenix - AwardBIOS CMOS Setup Utility	
▷ Standard CMOS Features	▷ PC Health Status
▷ Advanced BIOS Features	▷ Frequency/Voltage Control
▷ Advanced Chipset Features	Load Optimized Defaults
▷ Integrated Peripherals	Load Optimized Defaults
▷ FreeDOS Configuration	SAVE to CMOS and EXIT (Y/N)? <input type="text" value="Y"/>
▷ Power Management Setup	Save & Exit Setup
▷ PnP/PCI Configurations	Exit Without Saving
Esc: Quit F10: Save & Exit Setup	
↑↓→←: Select Item	
Save Data to CMOS	

Entering “Y” saves any changes made, and exits the program.
Entering “N” will cancel the exit request.

EXIT WITHOUT SAVING

Phoenix - AwardBIOS CMOS Setup Utility	
▷ Standard CMOS Features	▷ PC Health Status
▷ Advanced BIOS Features	▷ Frequency/Voltage Control
▷ Advanced Chipset Features	Load Optimized Defaults
▷ Integrated Peripherals	Load
▷ FreeDOS Configuration	Quit Without Saving (Y/N)? <input type="text" value="N"/>
▷ Power Management Setup	Save & Exit Setup
▷ PnP/PCI Configurations	Exit Without Saving
Esc: Quit F10: Save & Exit Setup	
↑↓→←: Select Item	
Abandon all Data	

Entering “Y” discards any changes made, and exits the program.
Entering “N” will cancel the exit request.

5

Driver Installation

This chapter gives you brief descriptions of each mainboard driver and application. You must install the VIA chipset drivers first before installing other drivers such as VGA drivers. The applications will only function correctly if the necessary drivers are already installed.

DRIVER UTILITIES

Getting Started

The VIPRO VP7806 includes a driver CD that contains the drivers and software for enhancing the performance of the system. The drivers can also be downloaded from <http://www.via.com.tw>.

**Note:**

The driver utilities and software are updated from time to time. The latest updated versions are available at <http://www.via.com.tw>

Running the Driver Utilities CD

To start using the CD, insert the CD into the CD-ROM or DVD-ROM drive. The CD should run automatically after closing the CD-ROM or DVD-ROM drive. The driver utilities and software menu screen should then appear on the screen. If the CD does not run automatically, click on the "Start" button and select "Run..." Then type: "D:\Setup.exe".

For Linux drivers, click the right button on mouse and click open. Linux drivers are located in the "Driver" folder.

**Note:**

D: might not be the drive letter of the CD-ROM/DVD-ROM in your system.

CD CONTENT

- **VIA Hyperion Pro Driver**
 - Compatible with all current VIA chipsets
 - Includes support for INF, AGP, V-RAID, and IDE
- **VIA Graphics Driver**
 - Enhances the onboard VIA graphic chip.
 - Windows XP and Linux drivers are provided.
- **VIA Audio Driver**
 - Enables access to the onboard VIA HD audio codec.
- **VIA USB 2.0 Driver**
 - Enhances VIA USB 2.0 ports.
- **VIA LAN Driver**
 - Enhances the onboard VIA VT6130 PCIe Gigabit Ethernet Chipsets.